TRANSPORTATION DISTRICT 2

Dedicated people creating transportation solutions through innovation and exceptional service.

TECHNICAL BULLETIN

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Special points of interest:

WisDOT is sponsoring a conference next month on bidding, construction and consultant processes for contractors, consultants, and others who do business with the state. The program is aimed at maintaining and strengthening the integrity of the competitive bidding process in Wisconsin. For more information use the link below.

http://www.dot.wisconsin.gov/news/events/ccc.htm

Additional Special Provisions (ASP's)

As standard specification changes come up that need fast-track implementation (faster than waiting for the next supplement) DOT will be inserting them into contracts via an Additional Special Provision (ASP 6). ASP 6 will be included with any other ASP's in each contract proposal immediately after the special provisions. ASP 6 will be inserted into all contracts by the proposal management section.

DOT has used ASP's in the past to introduce technical specification changes one ASP at-a-time as needed. ASP 6 will contain all cumulative technical spec changes as they become necessary. It is DOT's intention to publish a single annual supplement and use ASP 6 as a replacement for interim supplements.

This new mechanism will make it easier to implement emergency specification changes, but will require construction staff, contractors, and designers to read ASP 6 to avoid missing important specification changes. This is a reminder to look at all the ASP's for each contract along with the other special provisions for technical spec changes

Current ASP's, including ASP 6 are available to WISDOT users at:

http://dotnet/dtidcons/proposal/asp/asp.htm

Continually updated ASP's will be available to consultants on the extranet in the near future. At this time, the latest revised ASP 6 has been sent electronically to all consultant offices.

Consultant Contract Boiler Plate Recordable Plat Language

Transportation Project Plats, recordable plats, should be specified on all new consultant contracts for State and Interstate Highway projects where the plat is not being done by the District. It is optional for connecting highways and locals. To review the consultant contract language use the following links and click on the" Two Party Design" link and then scroll to section "M, Transportation Project Plats."

DOT staff
http://dotnet/consultants/special.htm

Consultants:
https://trust.dot.state.wi.us/extntgtwy/consultants/special.htm

Traffic Projections (Traffic Forecasts)

Some important points to keep in mind regarding traffic projections:

A traffic projection is a necessity for almost all design projects.

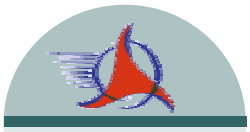
The projection is used to determine the design-year and design-hour traffic volumes, which influence the design standards and countless other project decisions.

Many projections require turn volumes.

Projections of future-year turn volumes are required for many projects, such as those involving design of traffic signals, roundabouts, or exclusive left turn bays. For such projects, turn volume projections should be requested at the same time as the mainline projection.

You should typically allow 6-8 weeks for the projection to be completed.

The amount of time required to complete a projection will vary depending upon our workload, the type, extent, and complexity of the projection, and most importantly whether fresh field data needs to be collected, so please make your request as early as possible during the design process. Recently we encountered a situation where a consultant mistakenly told a client that WisDOT could complete a very complicated traffic projection in 2 weeks. This was not a feasible time frame: the projection required a new intersection turn count which--by itself--required 3 weeks.



A traffic projection is a necessity for almost all design projects.

The "shelf life" of a 20-year projection is 3 years.

If your projection needs to be extended one or two years, we have a "do it yourself" spreadsheet that can be used to make the extrapolation (this sheet also estimates the volumes for each intermediate year of a 20-year projection). If the projection is more than 3 years old (e.g. a project for letting in 2006 that has a horizon year earlier than 2024), a complete update of the projection is required (contact Rebecca to request an update).

To assure statewide consistency, all projections MUST be done by WisDOT.

Do <u>not</u> include the traffic forecasting/traffic projection in the scope of your consultant design contract. Traffic projections are prepared using time series analysis. Few if any consultants have access to all of the traffic volume trend data that is necessary to prepare accurate traffic projections. In addition, there are many methods, assumptions and coefficients which the Traffic Forecasting Section has standardized on a statewide basis.

The traffic projection request form is available on the DOTNET at the following site:

- http://dtd-d2/SPO/Planning/is/Forecast/TrafficForecasting.htm .

1. Please submit requests for new traffic projections to Rebecca Klein **.**
2. Technical questions should be directed to Alpesh Shah (262) 548-5951
   Alpesh is responsible for all of the coordination with Central Office and the distribution of the finished product to the requester.

Before requesting turn projections, you will need to get existing turn counts by contacting Judy Lutter in the planning section at (262) 548-8765. This may also take another two weeks if no recent counts are in the district file. If you have any questions, please contact the supervisor John Shaw at (262) 548-5951.

Urban Hydrology for Small Watersheds (TR 55)

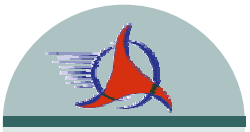
Wisconsin DOT has received word through the DNR that the Natural Resources Conservation Service (USDA) **does not recommend the Windows based version of TR-55 for use in Wisconsin.** Use of this program will result in an over-estimation of peak discharges and inaccurate hydraulic calculations for outlet pipes. This is a problem, when calculating pre-development flood peak discharge for urban detention basin design. Also, we do not want to pay for the over designed outlet pipes that could be produced as a result of the use of this program.

At this time NCRS does not plan to modify Win-TR55.

Version 2.1 of TR-55 is still acceptable for use and is available on NRCS's website.
http://www.wcc.nrcs.usda.gov/hydro/hydro-tools-models.html
Version 2.04 of TR-20 is also downloadable from this site.

Another deficiency is that window-TR55 limits the length of sheet flow to 100 feet, opposed to the previous version which limited it to 300 feet. This lowers the time of concentration and thereby increases peak flows. With our terrain in Wisconsin, the 100 foot limit is not reasonable.

If you need more information contact Wendy, Braun, Storm Water Engineer at (608) 261-0446 or by E-mail at wendy.braun@dot.state.wi.us



Windows based version of TR-55 Is not recommended for use in Wisconsin

Highway Traffic Operations & Design Manuals Library

WisDOT is pleased to announce the addition of the online **Highway Traffic Operations & Design Manuals Library** Dot staff http://dotnet/dtid_bho/extranet/bhomanuals.
Consultant staff https://trust.dot.state.wi.us/extntgtwy/dtid_bho/extranet/bhomanuals/index.htm

Please be aware that some manuals located on this site have separate links on the page for WisDOT employees and external customers. Please select the correct link.

Facilities Development Manual (FDM)	Pavement Marking Operations Manual (PMOM)
Manual of Uniform Traffic Control Devices	Sign Plate Manual
MUTCD Standard Highway Signs	Sign Code Manual
Wisconsin Supplement to the MUTCD	Signing Guidelines Manual
Traffic Guidelines Manual (TGM)	TIA Guidelines Manual & Sample Study
Highway Maintenance Manual	Traffic Signal Design Manual (TSDM)
Construction Standards Library	Work Zone Safety Guide
Standardized Special Provision (STSP)	Flaggers Handbook
ITS Design Manual	

For more information on this web site please contact Emily Johnson emily.johnson@dot.state.wi.us, 608-267-4486). If you have questions about the registration process please contact Randy King (randy.king@dot.state.wi.us, 608-266-0564).

Curing Concrete Cylinders

District 2 has experienced inappropriate job site curing methods. The specifications state: "Field cure cylinders under conditions similar to those prevailing for the pavement or structural masonry unit they represent."

Cylinder's must be cured next to the concrete pavement, under deck or masonry unit using blankets or burlap, or cold weather protection being used on the item.

If cylinders were moved to a safe location such as a field office or heated/ cooled job site (QC) curing box or trailer, they would then be cured in different conditions/temperatures resulting in unrepresentative compressive strengths.

Concrete Cylinders Operation

Pouring Concrete Cylinders

Curing Concrete Cylinders

Curing Concrete Cylinders

Standard Specification (WIS 2003 Edition)	Activity
502.3.10-1.3.2	Opening to Service (Masonry)
415.3.17.2.2	Opening to Traffic (Pavement)
415.3.15.2	Removing Cold Weather Protection
502.3.4	Stripping Forms

Transportation District 2

WISDOT District 2
141 NW Barstow St.
PO Box 798
Waukesha WI 53187-0798
Phone 262 548 6729
Fax 262-548-6465
E-Mail: dtd2techbulletin@dot.state.wi.us
Visit our Web Site
http://dtd-d2
Click on the Technical Bulletin Link

Increasing Productivity

PDF E-Plans

When switching from Adobe Acrobat version 4 to version 5 you might want to select a setting that makes PDF's (especially E-Plans look much better on the screen. Follow the instructions below:

1. Open Acrobat Reader and select Edit > Preferences
2. Click on Display in the left column
3. Check Smooth Line Art in the middle of the window
4. Click OK and close Acrobat

That's it. Acrobat will remember this setting.